



## PATHOGENETIC DIVERSITY OF THE IMMUNE DISTURBANCES IN PATIENTS WITH PULMONARY DRUG SUSCEPTIBLE AND DRUG RESISTANT TUBERCULOSIS

Author(s), affiliation Niguleanu Adriana 1, Lesnic Evelina 1, Privalova Elena 2, Ghinda Serghei 2  
1-Pneumology and Allergology Discipline, Nicolae Testemitanu SUMP of the Republic of Moldova  
2 - Immunology and Allergology Laboratory, Chiril Draganiuc Institute of Pneumophthisiology

### Introduction

The immune response to *M. tuberculosis* infection consists mainly in the activation of the cell-mediated immune response (CIR). Natural resistance (NR) and humoral immunity (HI) contribute to a long-lasting immune resistance to reinfection and reactivation of latent infection.

### Keywords

Tuberculosis, cell-mediated immune response, natural resistance, humoral immunity

### Purpose

Assessment of the pathogenetic diversity of immune disorders (ID) in serum in patients with pulmonary susceptible tuberculosis (S-TB) and MDR-TB

### Material and methods

Indicators of CIR (CD3+), NR (phagocytic number), and HI (CD19 +) were determined in 36 healthy individuals (control group-CG), 57 new cases with S-TB (study group 1-SG1) and 72 new cases of MDR-TB (study group 2-SG2). The average was reported to the CG which was the reference value, %. Range 1-33% of the reference value in CG considered the 1<sup>st</sup> degree of ID, 34-66% - the 2<sup>nd</sup> degree ID, >66% -the 3<sup>rd</sup> degree ID, as positive-immune overactivity (IOA) and negative-immune deficiency (ID).

### Results

Indices of CIR showed in the SG1 the cell-mediated immune deficiencies (CID) in 23 (41%) cases all of the 1<sup>st</sup> degree ID, in the SG2- CID of the 1<sup>st</sup> degree was in 60 (82%) and of 2<sup>nd</sup> degree CID - in 10 (18%) of cases. In the SG1 the CID was established in 32 (91%) and HI deficiencies (HID) - in 3 (9%). In the SG2 the CID was in 26 (90%), HID in 6 (10%) and NR deficiencies (NRD) in 8(23%) of cases. SG1 the 1<sup>st</sup> degree IOA was detected in 26(43%), 2<sup>nd</sup> degree 11(31%) and 3<sup>rd</sup> degree 9 (26%) cases. In SG2 the 1<sup>st</sup> degree IOA was established in 10 (16%), 2<sup>nd</sup> degree in 22 (36%) and 3<sup>rd</sup> degree in 29 (53%) of cases.

**Conclusion.** The deficiencies of the CIR were more frequently, established in patients with MDR-TB, associated with a higher rate of NRD and HID and a higher degree of IOA.